Appl. No.: 09/745,289
Amdt. dated 01/04/2005
Reply to Official Action of October 7, 2004

Amendments to the Claims:

1.   (Currently Amended) A method comprising

receiving a machine readable file containing a document that is to be served to a client for display on a client device, the organization of ~~each of~~ the ~~documents~~ in the file being expressed as a hierarchy of information, and

deriving subdocuments from the hierarchy of information, ~~each~~ at least one of the subdocuments being expressed in a format that permits it to be served separately to the client ~~using a hypertext transmission protocol~~, at least one of the subdocuments containing information that enables it to be linked to another one of the subdocuments.

2.   (Currently Amended) The method of claim 1 in which the hierarchical expression ~~language~~ comprises extensible mark-up language (XML).

3.   (Original) The method of claim 1 in which the deriving comprises traversing the hierarchy and assembling the subdocuments from segments, at least some of the subdocuments each being assembled from more than one of the segments.

4.   (Original) The method of claim 3 in which the assembling conforms to an algorithm that tends to balance the respective sizes of the sub-documents.

5.   (Original) The method of claim 3 in which the assembling conforms to an algorithm that tends to favor assembling each of the subdocuments from segments that have common parents in the hierarchy.

6.   (Original) The method of claim 3 in which the assembling conforms to an algorithm that tends to favor assembling each of the subdocuments from segments for which replications of nodes in the hierarchy is not required.

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7.   (Original) The method of claim 1 in which the file is received from an origin server associated with the file.

8.   (Original) The method of claim 7 in which the file is expressed in a language that does not organize segments of the document in a hierarchy, and the deriving of subdocuments includes first converting the file to a language that organized segments of the document in a hierarchy.

9.   (Original) The method of claim 1 also including serving the subdocuments to the client individually as requested by the client.

10.   (Original) The method of claim 9 in which the subdocuments are served to the client using a hypertext transmission protocol.

11.   (Original) The method of claim 9 in which the subdocuments are requested by the client based on the contained information that enables it to be linked to another of the subdocuments.

12.   (Original) The method of claim 1 also including
        identifying a portion of the document that is to be displayed separately from the rest of the document,
        the portion of the document that is to be displayed separately being excluded from the subdocument in which the portion would otherwise have appeared, the portion of the document that is to be displayed separately being included in at least one corresponding subdocument, and
        when the subdocument in which the portion would otherwise have appeared is served to the client device, embedding a graphical device that can be invoked by the user to retrieve the subdocument that includes the portion of the document that is to be displayed separately.

13.   (Currently Amended) A method comprising

receiving, from an origin server, a machine readable file containing a document that is to be served to a client for display on a client device, the file being expressed in a language that does not organize segments of the document in a hierarchy,

converting the file to a language that organizes segments of the document in a hierarchy,

traversing the hierarchy and assembling subdocuments from the segments, at least some of the subdocuments ~~each~~-being assembled from more than one of the segments, the assembling conforming to an algorithm that tends to (a) balance the respective sizes of the ~~sub-documents~~subdocuments, (b) favor assembling ~~each-of~~the subdocuments from segments that have common parents in the hierarchy, and (c) ~~assembling-each-of~~assemble the subdocuments from segments for which replications of nodes in the hierarchy is not required~~,~~

~~each~~-at least one of the subdocuments being expressed in a format that permits it to be served separately to the client ~~using-a-hypertext-transmission-protocol~~, at least one of the subdocuments containing information that enables it to be linked to another one of the subdocuments, and

serving the subdocuments to the client individually as requested by the client based on the contained information that enables it to be linked to another of the subdocuments~~, the serving being done using a hypertext-transmission-protocol~~.

14.   (Currently Amended) A machine-readable document held on a storage medium for serving to a client, the document being organized as a set of subdocuments, ~~each~~-at least one of the subdocuments containing information that enables the subdocument to be linked to another of the subdocuments, the information enabling the subdocument to be linked comprising a URL, ~~each-of~~the subdocuments comprising an assembly of segments of the document that are part of a hierarchical expression of the document, the subdocuments being of approximately the same size.

15.   (Cancelled)

16.   (Original) The method of claim 14 in which the hierarchical expression comprises extensible markup language (XML).

17.   (Currently Amended) A method comprising

receiving from a client a request for a document to be displayed on a client device,

serving separately to the client a subdocument that represents less than all of the requested document, ~~each~~ the subdocument containing information that links it to at least one other subdocument,

receiving from the client an invocation of the link to the other subdocument, and

serving separately to the client device the other subdocument.

18.   (Original) The method of claim 17 in which the subdocuments are served to the client using a hypertext transmission protocol.

19.   (Original) The method of claim 17 in which the subdocuments are of essentially the same length.

20.   (Original) The method of claim 17 in which the subdocuments are of a length that can be displayed on the client device without further truncation.

21.   (Original) A method comprising

receiving from a server at a client device, a subdocument of a larger document for display on the client device,

displaying the subdocument on the client device,

receiving at the client device a request of a user to have displayed another subdocument of the larger document,

receiving separately from the server at the client device, the other subdocument, and

displaying the other subdocument on the client device,

the subdocuments being of substantially the same length.

22.   (Original) The method of claim 21 in which the subdocuments are expressed in a hypertext transmission protocol.

23.   (Original) The method of claim 21 in which the request of the user is expressed as a URL.

24.   (Original) The method of claim 21 in which all of each of the subdocuments is displayed at one time on the client device.

25.   (Original) The method of claim 21 in which less than all of each of the subdocuments is displayed on the client device at one time.

26.   (Currently Amended) A method comprising
displaying a subdocument of a document on a client device,
displaying an icon with the subdocument, and
in response to invocation of the icon, fetching another subdocument of the document from a server and displaying the other subdocument on the client device,
~~each of~~ the subdocuments being less than the entire document, the subdocuments being of approximately the same size.

27.   (Original) The method of claim 26 in which only a portion of each of the subdocuments is displayed at one time.

28.   (Original) The method of claim 27 also including displaying an indication of the position of the currently displayed subdocument in a series of subdocuments that make up the document.

29.   (Currently Amended) The method of claim 28 in which the indication ~~includes~~ includes the total number of subdocuments in the series and the position of the currently displayed document in the sequence.

30.   (Original) The method of 1, 17, or 21 in which the subdocuments are derived from the document at the time of a request from the client device for the document.

31.   (Original) The method of claim 30 in which the subdocuments are derived in a manner that is based on characteristics of the client device.

32.   (Original) The method of claim 31 in which the characteristics of the client device are provided by the client in connection with the request.

33.   (Original) The method of claim 32 in which the characteristics include the display capabilities of the client device.

34.   (Original) The method of claim 1, 17, or 21 in which the subdocuments are derived from the document before the client requests the document from the server.

35.   (Original) The method of claim 34 in which subdocuments are derived for different documents from different origin servers.

36.   (Original) The method of claim 1, 17, or 21 in which the subdocuments are derived from the document at a wireless communication gateway.

37.   (Currently Amended) Apparatus comprising
    a network server configured to receive a machine readable file containing a document that is to be served to a client for display on a client device, and to derive subdocuments from the file, ~~each~~ at least one of the subdocuments being expressed in a format that permits it to be

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served separately to the client using a hypertext transmission protocol, at least one of the subdocuments containing information that enables it to be linked to another one of the subdocuments.

38.   (Currently Amended) Apparatus comprising

means for receiving a machine readable file containing a document that is to be served to a client for display on a client device, and

means for deriving subdocuments from the file, each at least one of the subdocuments being expressed in a format that permits it to be served separately to the client using a hypertext transmission protocol, at least one of the subdocuments containing information that enables it to be linked to another one of the subdocuments.

39.   (Currently Amended) A machine-readable program stored on a machine-readable medium and capable of configuring a machine to

receive a machine readable file containing a document that is to be served to a client for display on a client device, and

derive subdocuments from the file, each at least one of the subdocuments being expressed in a format that permits it to be served separately to the client using a hypertext transmission protocol, at least one of the subdocuments containing information that enables it to be linked to another one of the subdocuments.

40.   (Previously Presented) The method of claim 7 in which the file comprises an electronic document.

41.   (Previously Presented) The method of claim 7 in which the file comprises an email file.

42.   (Previously Presented) The method of claim 7 in which the file is received from the origin server in the form of a webpage.